

REMARKS

Claims 117 to 136, 139 to 144, 146 to 165 and 168 to 174 are pending in this application; of which, claims 117 and 146 are the independent claims. No claims are yet allowed. Claims 117-136, 139-144, 146-165 and 168-174 are rejected. No claims are amended herein. Claims 137, 138, 145, 166 and 167 are cancelled without prejudice by this amendment. Favorable reconsideration and further examination are respectfully requested.

Before discussing the rejections set forth in the Office Action, Applicants had teleconferences with the Examiner which took place on Wednesday, June 21, 2006 and Thursday, June 22, 2006 to discuss the § 103 rejection. As a result of these discussions with the Examiner, the Examiner has indicated that Applicants' arguments below overcome the § 103 rejection.

The Examiner rejected claim 137 to 138, 145 and 166 to 167 for §101 and §112 reasons. Applicants submit these rejections are moot in light of cancellation of those claims.

Claims 117 to 126, 130 to 155 and 159 to 174 were rejected under 35 U.S.C. § 103(a) as being anticipated by Cohen et al. (U.S. Patent Number 6,952,779) in view of Steffan et al ("Collaborative Attack Modeling").

Claim 117 is directed to a method which includes using a computer to generate a pruned attack tree. Using the computer includes designating a root node of the pruned attack tree. The root node represents a starting point of an attack. Using the computer also includes, for a current node included in the pruned attack tree, connecting a resulting node having a first state and an

edge having a first transition value to the current node if determined another edge having a second transition value does not connect an ancestor of the current node to another node having a second state equivalent to the first state; and if determined the second transition value is equal to the first transition value.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, neither Cohen nor Steffan disclose or suggest that using the computer also includes, for a current node included in the pruned attack tree, connecting a resulting node having a first state and an edge having a first transition value to the current node if determined another edge having a second transition value does not connect an ancestor of the current node to another node having a second state equivalent to the first state; and if determined the second transition value is equal to the first transition value.

Cohen does not disclose or suggest a pruned attack tree much less generating a pruned attack tree. Therefore, Cohen does not disclose or suggest that using the computer also includes, for a current node included in the pruned attack tree, connecting a resulting node having a first state and an edge having a first transition value to the current node if determined another edge having a second transition value does not connect an ancestor of the current node to another node having a second state equivalent to the first state; and if determined the second transition value is equal to the first transition value.

The Examiner uses the Steffan reference to make-up for the deficiency in Cohen of not generating a pruned attack tree. Steffan discloses that "(a)n advantage of the net structure compared to a list of criteria is that non-relevant subgraphs can be pruned early if some condition

is not fulfilled” (See section 5 of Steffan). However, Steffan does not disclose or suggest how to generate a pruned attack tree much less the method recited in claim 1. As understood by Applicants, Stefan makes no reference as to the criteria for including a node in a prune attack tree much less any reference to the transition value of the edges. Moreover, Applicants have clearly disclosed in the application that a pruned attack tree is generated without generating a full attack tree (see page 44, lines 15 to 22 of Applicant's specification); however, the Examiner has indicated that one skilled in the art would prune Cohen's attack graph (see page 5 of the Office Action). Therefore, Steffan does not disclose or suggest that using the computer also includes, for a current node included in the pruned attack tree, connecting a resulting node having a first state and an edge having a first transition value to the current node if determined another edge having a second transition value does not connect an ancestor of the current node to another node having a second state equivalent to the first state; and if determined the second transition value is equal to the first transition value.

Even if Cohen and Steffan were combined, the hypothetical combination would not disclose or suggest that using the computer also includes, for a current node included in the pruned attack tree, connecting a resulting node having a first state and an edge having a first transition value to the current node if determined another edge having a second transition value does not connect an ancestor of the current node to another node having a second state equivalent to the first state; and if determined the second transition value is equal to the first transition value.

For at least the foregoing reasons, Applicants submit that claim 117 is allowable.

Claim 146 is an article having corresponding features to claim 117. Applicants submit that claim 146 is patentable for at least the same reasons as claim 117.

For at least the foregoing reasons, Applicants request withdrawal of the art rejection.

Applicants submit that all dependent claims now depend on allowable independent claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that the entire application is now in condition for allowance. Such action is respectfully requested at the Examiner's earliest convenience.

All correspondence should be directed to the address below. Applicants' attorney can be reached by telephone at (781) 401-9988 ext. 23.

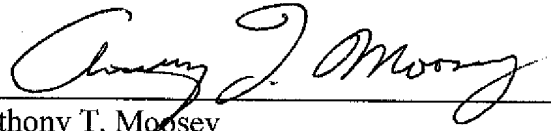
Applicants : Lippmann et al.  
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Attorney's Docket No.: MIT-186PUS

No fee is believed to be due for this Response; however, if any fees are due, please apply such fees to Deposit Account No. 50-0845 referencing Attorney Docket: MIT-186PUS.

Respectfully submitted,

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